Implementation of the WTO Agreement on the Application of Sanitary and Phytosanitary Measures

The Uruguay Round's SPS Agreement imposed disciplines on the use of measures to protect human, animal, and plant life and health from foreign pests, diseases, and contaminants. Three years into its implementation, the Agreement can be credited with increasing transparency of countries' SPS regulations and providing improved means for settling SPS-related trade disputes. The Agreement has also provided impetus for unilateral regulatory reforms in some countries. [Donna Roberts (droberts@ustr.gov)]

Introduction

From the perspective of trade in primary and processed agricultural products, some of the most important new disciplines of the Uruguay Round are found in the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement). It is widely acknowledged that SPS measures, which regulate movement of products across international borders, are necessary to protect public health or the environment from pests, diseases, and contaminants, It is likewise acknowledged that these measures can be used to thwart commercial opportunities created by other trade liberalization policies. Although economists have found it difficult to systematically evaluate the impacts of SPS regulations on trade in agricultural goods, or to assess their relative importance in the world trading system, there has long been broad recognition that these measures can significantly impede trade. Despite this recognition, it was not until the 1986-1993 Uruguay Round multilateral trade negotiations that separate disciplines were negotiated for SPS measures.

The challenge before the negotiators of the SPS Agreement was to create a set of rules that would strike the proper balance between allowing health and environmental protection while disallowing mercantilist regulatory protectionism. In broad terms, the Agreement recognizes the right of each WTO member to adopt trade-restricting measures to protect human, animal, and plant life and health, but requires such measures to be based on a scientific assessment of the risks and to be applied only to the extent necessary to achieve public health or environmental goals. The SPS Agreement also recognizes standards promulgated by certain international organizations to be "safe harbor" standards—i.e., a member that adopted these standards would be "rebuttably presumed" to be in compliance with the Agreement.

Initially, some major agricultural exporting countries voiced concerns that the Agreement (and the jurisprudence interpreting the Agreement) might allow wide latitude in adopting SPS measures—that importing countries could impose measures that impede trade, no matter how unlikely or how inconsequential the identified risks were. Alternatively, environmental and consumer advocates were troubled that under the SPS Agreement, the standards for crafting SPS measures could be too high—that the Agreement might limit the ability of governments to raise food safety standards or to adopt precautionary measures to protect the environment from foreign biological hazards in instances where the risks were not well understood. This article examines developments since the entry into force of the SPS Agreement in January 1995, with a view to evaluating if and how the Agreement has served the interests of the liberal trading system from the evidence to date.

The SPS Agreement: Origins and Principal Provisions

Prior to the conclusion of the Uruguay Round, multilateral disciplines on the use of SPS measures were found in the original GATT Articles (primarily Article XX—*General Exceptions*) and the 1979 Tokyo Round Agreement on Technical Barriers to Trade (a plurilateral agreement known as the Standards Code). These legal instruments stipulated that measures could not be "applied in manner which would constitute…a disguised restriction on international trade" or "create unnecessary obstacles to trade." The consensus view that emerged in the decade following the Tokyo Round was that loopholes in the GATT and the Standards Code had failed to stem disruptions of trade in agricultural products caused by proliferating technical restrictions.

Not one SPS measure was successfully challenged before a GATT dispute settlement panel after the Tokyo Round, and several prominent disagreements over SPS measures in the 1980s remained unresolved. Meanwhile, the commitment to negotiate an Agriculture Agreement during the Uruguay Round that would discipline the use of agricultural non-tariff barriers for the first time heightened concerns that governments would resort to regulatory compensation, in the form of SPS barriers, to appease domestic producers in this politically sensitive sector.

The SPS Agreement established new substantive and procedural disciplines for a wide array of sanitary and phytosani-

tary measures. The substantive requirements found in the Agreement suggest a normative basis for SPS measures, while the procedural obligations facilitate decentralized policing of such measures.

Many of the most significant substantive disciplines are found in Article 5 of the Agreement. The cornerstone of the Agreement is found in Article 5.1, which requires that any SPS measure be based on an assessment of risks posed by the import. Articles 5.2 and 5.3 contain an indicative list of factors, such as potential production or sales losses and eradication costs, that are to be taken into account in risk assessments and in risk management decisions that limit imports. Article 5.5 states that members shall avoid arbitrary or unjustifiable distinctions in levels of health or environmental protection provided by SPS measures, if such distinctions result in discrimination or a disguised restriction on international trade. And Article 5.7 indicates that if relevant scientific evidence is "insufficient," members may adopt SPS measures on a provisional basis while seeking additional information about the risks posed by a recently identified hazard. Four other Articles comprise the remaining principal substantive disciplines in the Agreement (see box "Principal Provisions of the WTO SPS Agreement").

The substantive provisions of the SPS Agreement suggest that the parameters of the SPS negotiations were established by the risk assessment paradigm. Within this paradigm, analysts identify measures that will achieve an acceptable level of risk (or appropriate level of protection, in the language of the Agreement) and policymakers' choices are restricted to this set. Determination of an "appropriate level of protection" or risk target typically embeds value judgments in scientific assessments of risks, and may encourage myopic focus on only the risk-related costs of measures. This normative basis for regulatory decisionmaking stands in contrast to the economic paradigm, in which the aim is to infer appropriate levels of protection using economic welfare analysis tools to systematically analyze the benefits as well as the costs (including risk-related costs) of different regulatory options. The SPS Agreement's implicit endorsement of a normative foundation based on "risk-related costs" rather than "benefit-cost analysis" may have stemmed from philosophical objections to the introduction of economic benefits into risk mitigation decisions. Or, it may have stemmed from pragmatic concerns related to developing disciplines that would not unduly complicate judgment about compliance with the Agreement.

Distinguishing health and environmental protection from mercantilist economic protectionism relies on effective decentralized policing by WTO members of the many SPS measures that are promulgated each year. The procedural requirement to notify WTO trading partners of changes in SPS measures that affect trade underpins the system established by the SPS Agreement to facilitate multilateral monitoring. Notification provides an opportunity for trading partners to comment on a measure *before* it is adopted, thereby potentially averting fractious trade disputes. On the notification form, members are asked to provide a justification of the proposed measure, to explicitly identify the products to which it applies, and to note whether it conforms to an international standard (if one exists). Such "transparency provisions" for regulatory measures are particularly important in view of the fact that exporters often report that complying with undocumented *de facto* measures represents a significant impediment to trade.

The Agreement has created other mechanisms to improve the institutional setting for addressing SPS barriers as well. The Agreement establishes a SPS Committee, made up of delegations representing each WTO member country, to develop SPS policy guidelines and discuss selected measures. And WTO dispute settlement procedures are available to members in instances where bilateral and multilateral technical exchanges have reached an impasse. If formal consultations do not result in a mutually agreeable solution between the parties to a dispute, a member can request a dispute panel (and subsequently the WTO Appellate Body if necessary) to rule whether a measure is in compliance with the provisions of the SPS Agreement.

The SPS Agreement: A Catalyst for Regulatory Reform?

As anticipated, the Agreement has generated a broad-based regulatory review among some WTO members, as major agricultural exporters and importers determine whether they and their trading partners are in compliance with the new substantive and procedural disciplines. Evidence is accumulating that suggests that, at least in the "G-8" countries (Argentina, Australia, Canada, the EU, Japan, New Zealand, Thailand, and the United States) that led the SPS negotiations, regulatory authorities in several instances are either unilaterally modifying regulations to comply with the Agreement's substantive obligations or voluntarily modifying regulations after technical bilateral exchanges. For example, the United States' recent adoption of its "regionalization regulation" is a significant departure from its long-standing practice of only recognizing entire countries as "free" or "not free" of a particular disease. This regulatory action has allowed imports of uncooked beef from regions in Argentina that have been recognized as free of foot and mouth disease into the United States for the first time in 80 years. And after 3 years of bilateral technical exchanges, the United States recently replaced a controversial 83-year old ban on Mexican avocados with a geographical/seasonal process standard that allows imports.

Similar examples of an accelerated schedule for "upgrading" SPS measures in the G-8 countries include the lifting of a 46-year old ban on U.S. tomatoes by Japan, acceptance of Canadian salmon by New Zealand, and Australia's acceptance of cooked poultry meat. Other examples can be found.

Principal Provisions of the WTO SPS Agreement

Article 2 (Basic Rights and Provisions): Members have the right to take SPS measures necessary for the protection of human, animal, or plant life or health (Article 2.1), but measures must be applied only to the extent necessary, be based on scientific principles, and not be maintained without sufficient scientific evidence (Article 2.2). SPS measures must not discriminate between members where identical or similar conditions prevail, including between their own territory and that of members (Article 2.3).

Article 3 (Harmonization): Members shall base their SPS measures on international standards (if they exist) that are promulgated by the Codex Alimentarius Commission (Codex), the International Organization of Epizootics (OIE), or the International Plant Protection Convention (IPPC) (Article 3.1), unless they choose to adopt measures that result in a higher level of health or environmental protection (Article 3.3).

Article 4 (Equivalence): The Agreement recognizes that different measures can provide equivalent levels of health or environmental protection. Therefore, a country must allow imports from an exporting nation with different SPS measures from its own if the exporter objectively demonstrates that its measure achieves the importer's appropriate level of protection.

Article 5 (Assessment of Risk and Determination of the Appropriate Level of Sanitary or Phytosanitary Protection): Members are obliged to base their measures on a risk assessment, taking into account, when possible and as appropriate, risk assessment methodologies developed under the auspices of the relevant international organizations (Article 5.1). Factors that should be taken into account in a risk assessment—including available scientific evidence; relevant processes and production methods; relevant inspection, sampling, and testing methods; relevant ecological and environmental conditions; and quarantine or other treatment—are found in Article 5.2.

Article 5.3 stipulates that countries are to consider direct risk-related costs (e.g., potential production or sales losses or control and eradication costs) both in assessing risks and managing risks through the choice of an SPS measure to protect plant or animal health. Article 5.5 states that each member is also obliged to avoid arbitrary or unjustifiable distinctions in the levels of protection it considers to be appropriate if these distinctions would result in a disguised restriction on international trade, in order to achieve the objective of consistency in the application of SPS measures. Article 5.7 allows members to adopt temporary measures to mitigate unfamiliar risks while collecting additional information that would permit an objective risk assessment and re-evaluation of the temporary risk-management measure.

Article 6 (Adaption to Regional Conditions, Including Pest- or Disease-Free Areas and Areas of Low Pest or Disease Prevalence): This provision recognizes that pest- or disease-free areas are largely determined by geographic and other ecological conditions, not political boundaries, and therefore may be part of one country, or all or parts of several countries. Import protocols must therefore be based on a risk assessment that evaluates the claims by exporting countries that certain regions are free of quarantine diseases or pests, or that the prevalence of quarantine pests and diseases is low.

Source: General Agreement on Tariffs and Trade, 1994. *The Results of the Uruguay Round of Multilateral Trade Negotiations: The Legal Texts*, Geneva.

In all of these cases, a finding by regulatory scientists that an import protocol could be designed to reduce risks to negligible levels was a necessary condition for a change in regulation. However, it was no doubt easier to enact these regulatory changes within the new framework of multilateral SPS disciplines that provided policymakers with some assurance that the measures of trading partners would be obliged to conform to the same principles.

Notification Requirements Improve Transparency

More systematic evidence is available to gauge compliance with the procedural obligation to notify trading partners of proposed SPS measures that might affect trade. The data indicate that complete regulatory transparency still remains a goal. More than half of the members have not yet notified a single SPS measure, although all the transparency disciplines have been obligatory for all members since 1995 (table 8). Most non-complying members are low or lower-middle income countries. Many members in the upper middle and high income categories that have not yet notified an SPS measure are member states of the EU (the European Commission notifies EU-wide SPS measures, but the member states notify the few national measures that fall outside the competence of the Commission) or small economies whose actions are unlikely to affect international markets. In contrast, the major agricultural importing and exporting

Table 8--WTO member SPS notifications by income class, 1995-November 1998

WTO members/ income status 1/	Non-notifying members	Notifying members	Number of measures
Low income	33	7	17
Lower middle income	19	19	161
Upper middle income	9	11	271
High income	14	20	517
Total	80	52	966

1/ As defined by the World Bank.

Source: WTO (G/SPS/W/50, G/SPS/GN/11, and G/SPS/GEN/48, 60, 80, 87, and 99) and author's calculations.

members are conscientiously observing the transparency obligations. These major trading nations, together with other members, have notified a total of 966 measures during the first 2 years of the Agreement.

It is too early to make a strong judgment whether the transparency provisions of the SPS Agreement will significantly curb regulatory protectionism over time. Nevertheless, in the short run, its contribution to promoting symmetry of information among members—many of whom are less-developed countries (LDCs) that are dependent upon the import and export of raw and semiprocessed agricultural products—should be recognized.

For example, the EU notified WTO members in early 1998 of a proposed regulation to lower maximum residue levels (MRLs) for aflatoxin in a wide range of foodstuffs, which prompted protest from a large number of members (including Senegal, the Gambia, India, Brazil, and the Philippines). These countries argued that the EU's proposed MRLs would significantly increase exporters' costs without increasing food safety, since there was no evidence that products that satisfied prevailing (higher) MRLs for aflatoxin posed health risks. The EU subsequently announced that it would revise its proposed aflatoxin MRL for peanuts, adopting the (draft) international standard instead. The EU also announced that it would reconsider its proposed aflatoxin MRLs for other commodities. Under other circumstances, LDC members may have had difficulty in learning about the details of the regulation at the proposal stage, either to successfully challenge the measure before it was adopted (as in this case) or to prepare for its eventual adoption.

Disputes Under the SPS Agreement

WTO members have used the forum provided by the SPS Committee to air grievances over measures when bilateral technical exchanges have reached an impasse. On occasion, when Committee exchanges have failed to produce results that are satisfactory to both parties, members have requested formal WTO consultations. These consultations have, in some instances, obviated the need for referring the matter to a WTO panel.

South Korea's change in policy regarding government mandated shelf-life standards provides one example where formal consultations led to a negotiated settlement (table 9). The U.S. government questioned the scientific basis for uniform shelf-life requirements during WTO consultations with South Korea in May 1995. Three months later, the two governments notified the WTO that they had reached a mutually acceptable solution to the dispute: South Korea agreed to allow manufacturers of frozen foods and vacuum-packed meat to set their own use-by dates. Formal consultations may also successfully resolve the 1996 complaint by the United States against some of Korea's numerous inspection measures that result in port delays that greatly exceed the norm in Asia.

To date, three SPS disputes have advanced to WTO panels: the EU-U.S./Canada *Hormones* dispute, the Australia-Canada *Salmon* dispute, and the Japan-U.S. *Varietal Testing* dispute. It was widely expected that the long-running disagreement between the United States and the EU over the safety of hormonal growth stimulants in beef cattle production would be the bellwether test of the new disciplines in the SPS Agreement. The dispute raised broad questions about the extent to which the new multilateral trade rules could limit a country's ability to adopt standards that exceeded the international norm or to exercise caution in policy decisions. The EU claimed that the level of health protection provided by the international standards for the hormones at issue did not meet its exigent public health goals. The EU also broadly argued in its defense of the ban that adequate allowance should be made for regulating risks that are imperfectly understood but that could cause irreversible harm, often referred to as the *precautionary principle*.

After a WTO panel ruled that the ban violated the provisions of the SPS Agreement in August 1997, the case was appealed. Four months later, the Appellate Body upheld the panel's decision that the ban was not in compliance with the disciplines in the SPS Agreement. The Appellate Body concurred that the EU ban was not based on a risk assessment, as there appeared to be no "rational relationship" between the EU's measure and the health risks described by existing scientific evaluations of consuming hormone-treated beef. The Appellate Body likewise agreed with the panel that while the EU was entitled to adopt a measure that provided a higher level of protection than the international standards, it had not produced scientific evidence to support the claim that the ban actually did so. The decisions also noted that while the EU had broadly argued that its regulatory decision had been guided by the precautionary principle, it had been unwilling to specifically defend its measure under the provision of the Agreement that codifies the precautionary princi-

Table 9--Overview of formal disputes under the SPS Agreement, 1995-1998

Measure	Complaining party	Status
Korean shelf-life measures	United States	Settled case
Korean measures concerning bottled water	Canada	Settled case
Korean measures concerning inspection of agricultural products	United States	Pending consultations
U.S. measures affecting poultry imports from the EU	EU	Pending consultations
EU measures affecting imports of wood from conifers	Canada	Pending consultations
EU measures affecting the prohibition of asbestos and asbestos products	Canada	Panel requested
EU measures concerning meat and meat products (hormones)	United States and Canada	Completed Appellate Body proceedings *Ruling: the EU ban on imports of hormone-treated beef was not based on a risk assessment; the EU did not produce scientific evidence to support the claim that its ban provides a higher level of health protection than international standards provide.*
Australian measures affecting the importation of salmon	Canada	Completed Appellate Body proceedings *Ruling: Australian measures were not based on a risk assessment; the ban on salmon imports measures provided a level of protection that was arbitrarily higher than levels of protection provided by other Australian measures to prevent the introduction of disease in its recreational and commercial fish stocks.*
Japanese varietal testing requirements	United States	Completed WTO panel proceedings *Ruling: Japanese measures were maintained without sufficient scientific evidence; were not the least-trade restrictive means for achieving Japan's appropriate level of protection; and were not transparent.* Japan notified the United States on November 24, 1998 that it will appeal the panel's findings.

ple. Article 5.7 permits members to adopt temporary measures to mitigate unfamiliar risks while collecting additional information, but since the EU considered its measure final, not provisional, it did not defend the hormone ban under this provision. The Appellate Body ruled that the EU measure must therefore be consistent with the obligations specified in the other Articles of the Agreement.

Formal consultations also failed to produce negotiated solutions in the Australian-Canadian *Salmon* dispute and in the Japan-U.S. *Varietal Testing* dispute. These two disputes centered on measures that were justified on the basis of protecting, respectively, recreational and commercial fish stocks and orchards from exotic pathogens. Rulings in these two cases (by the Appellate Body in the *Salmon* dispute and by a WTO panel in the *Varietal Testing* dispute) were released in October 1998.

The Appellate Body concurred with Canada in the *Salmon* dispute that Australia's 1975 ban on imports of fresh, chilled, or frozen (eviscerated) salmon from the Northern Hemisphere was inconsistent with the legal obligations set forth in the SPS Agreement. As in the *Hormones* dispute, the Appellate Body ruled that the measures at issue were not based on a risk assessment. The report that Australia relied on to inform its policy decision did not constitute a risk assessment in the view of the judges, because it neither evaluated the likelihood of entry, establishment, and spread

of diseases, nor evaluated the potential consequences of these diseases. The Appellate Body agreed with the earlier panel finding that the report contained "general and vague statements of mere possibility of adverse effects occurring; statements which constitute neither a quantitative nor a qualitative assessment of probability." The Appellate Body also concurred with Canada that the ban provided a level of environmental protection that was arbitrarily higher than that provided by other Australian SPS measures because Australia allows imports of other fish that are potentially vectors for the same, or even more virulent, diseases.

At issue in the *Varietal Testing* dispute were Japanese requirements to test whether methyl bromide treatments effectively exterminate codling moths on new varieties of fruit and walnuts. The United States argued that such requirements restricts U.S. exports (since the cost of the required trials discourages exporters from marketing new hybrids in Japan) and were unscientific, since Japan could produce no evidence to support the claim that variety is a causal factor of variation in extermination efficacy. The panel concurred that Japan's phytosanitary measures were not based on "sufficient scientific evidence". It also agreed with U.S. position that the testing requirements were not the least-trade restrictive means for achieving Japan's appropriate level of protection (since evidence presented during the proceedings indicated that testing each product, rather than each variety of each product, was sufficient). The panel also found that Japan's varietal testing requirements were not transparent since they had not been published. Japan notified the United States in November 1998 that it will appeal the panel's findings.

Two facts related to the list of formal SPS complaints shown in table 9 merit comment. First, although there were virtually no trade disputes over SPS measures that advanced to formal dispute settlement proceedings during the 47 years of GATT, there have been formal complaints related to nine distinct issues over the first 3 years of the SPS Agreement. This increase suggests that the prospects for disciplining the use of measures that the private sector reports as significant impediments to agricultural trade have in fact improved in the post-Uruguay Round legal environment. Secondly, all formal SPS disputes to date have arisen between "high-level" countries (countries with rigorous standards, rigorously enforced), which prompts the observation that claims asserting the new SPS disciplines would result in an intolerable assault on developed countries' food safety and environmental standards have likely been overstated.

Conclusion

The outcomes of formal disputes that reach WTO panels (and especially the highly visible *Hormones* dispute) are likely to dominate any judgment in the near term about whether the SPS Agreement (and jurisprudence which interprets that Agreement) contributes to effective functioning of the world trading system. To date, decisions in the *Hormones*, *Salmon*, and *Varietal Testing* cases, which may signal how WTO tribunals will generally interpret some of the Agreement's disciplines in SPS cases, have ratified the central importance of the substantive obligation to base sanitary and phytosanitary measures on an objective assessment of risks. The decisions in these three cases, which found that the disputed measures were not "based on a risk assessment" or that they were "maintained without sufficient scientific evidence," recognized that science is descriptive, not prescriptive, but held that there must be a "rational relationship" between the policy choices made by governments and objective scientific assessments that go beyond hypothesis or hazard identification.

The requirement to reference scientific evidence in dispute proceedings eliminates recourse to a stonewalling strategy of declarations rather than explanations, which was used to great effect by some governments in defense of the most egregiously protectionist SPS measures prior to the Uruguay Round. But the "rational relationship" judicial test also implies that multilateral trade rules will discipline the use of protectionist SPS measures that feature only a slim element of genuine health or environmental protection.

The *Hormones* rulings on the Agreement's provisions related to international standards and precautionary regulatory decisions will perhaps dispel concerns that WTO tribunals might view as their mandate the vigorous promotion of globalization at the expense of national sovereignty. The WTO Appellate Body explicitly ruled that international standards are not obligatory under the terms of the SPS Agreement, which should allay anxieties that the Agreement would promote "downward harmonization" of national standards to facilitate trade. And although the panel and Appellate Body did not concur with EU arguments that its regulatory choice could be seen as precautionary in view of the breadth of scientific consensus on the safety of hormones, the *Hormones* case did highlight the fact that the SPS negotiators made provision for the adoption of measures to mitigate unfamiliar risks on a temporary basis.

Beyond the high-profile WTO disputes, the past 2 years have seen a number of unilateral and negotiated decisions to ease SPS trade restrictions. The principles and the institutional mechanisms established by the Agreement are therefore credited with being an important factor in prompting or prodding some members to revise especially conservative SPS measures. These revised measures have eased strains in bilateral trade relations, notably between the United States and East Asia, and the United States and Latin America.

Compliance with the transparency provisions of the Agreement may weigh heavily in future evaluations of whether the Agreement has made a significant contribution to the liberal international trading system. Changes in regulatory regimes, which track changes in production, process-

ing, and detection/eradication technologies, are routine, not the exception, and these changes will likely continue to spawn disagreements between importers and exporters. In this context, the continuing injunction to base measures on a risk assessment and to notify one's trading partners of proposed SPS measures could make a sizable (albeit, difficult to measure) contribution to the multilateral trading system. Gauging this contribution will entail weighing whether an ounce of prevention has produced a pound of cure.

Further study of individual SPS measures will provide evidence about the degree to which the SPS disciplines contribute to good economic policy. While the Agreement requires a measure to be based on "scientific principles" and on "sufficient scientific evidence," nothing in the Agreement requires countries to enact only those measures whose "benefits" outweigh the "costs." Indeed there is some question of whether the Agreement could actually hinder efforts to base SPS measures on economic efficiency criteria if policymakers chose to do so. But despite differences between what economists would recommend and what the Agreement might allow or proscribe, the SPS Agreement has clearly reduced the degrees of freedom for the disingenuous use of SPS measures to restrict imports in response to narrow interest group pressures. This contribution to the world trading system should not be underestimated. Over time, one can anticipate that further research, drawing on evidence provided by unilateral policy choices and future dispute panel decisions, will permit more substantive judgement about how well the legal principles of the WTO/GATT system function to address SPS measures, and how they might be improved.

For more information see:

Donna Roberts, "Preliminary Assessment of the Effects of the WTO Agreement on Sanitary and Phytosanitary Trade Regulations," *Journal of International Economic Law*, 2: 377-405, 1998.

Donna Roberts, Timothy Josling, and David Orden, "A Framework for Analyzing Technical Trade Barriers," Technical Bulletin, Econ. Res. Serv., U.S. Dept. Agr., forthcoming.